

*The Diffusion
of Greco-Roman Medicine
into the Middle East
and the Caucasus*

Edited by

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MEDICINE IN ARMENIA

by STELLA VARDANIAN

THE MASHTOTS MATENADARAN, YEREVAN

Medicine is an inseparable part of ancient Armenian culture, its roots coming from deep in the past. Initially based on folk medicine, it was to accumulate the experience of many generations of Armenian physicians who knew the curative properties of plants, animals, and minerals. Armenian folk medicine, which goes back three thousand years, has created a rich treasury of medicaments. In ancient times the medicinal herbs of the Armenian highland were especially well regarded, and were exported to the East and to some countries of the West. In discussions of Armenia, such ancient writers as Xenophon, Pliny and Tacitus also included references to these medicinal herbs.

In his *Anabasis*, Xenophon speaks about the aromatic wines of Armenia, its fine beer, almond oil, sesame oil, and turpentine, as well as fragrant perfumes (*Anabasis* IV iv 1-13). He notes that the superb secrets of their preparation were known to the Armenians; but other commentators were no so flattering, for Pliny (*NH* XIX. xv.40) finds Armenian laserwort inferior to that from Cyrenaeca. In his *Materia Medica*, Dioscorides, a Cilician by birth, referred to the Armenian varieties of plants, which, in his own words, were outstanding for their remarkable curative qualities. "The best cluster cardamon," he wrote, "is the Armenian sort with its golden, yellowish stem and delightful aroma" (*Material medica* 1.6). In his *Annals*, Tacitus mentioned "home remedies" which were used with success by Armenian peasants in treating wounds.

In ancient times, Armenia, as well as Media, was considered the

native land of a number of valuable gum-producing plants, among them the well known laserwort (*Laserptium* or *Sylphium*). The curative properties of the latter were very highly appreciated by the Romans, as witnesses by Pliny in his *Natural History*. According to other information, Mithridates, the king of Pontus, a specialist in toxic material of the ancient world, prepared his outstanding antidote from the medicinal herbs of Armenia.

Armenian historians themselves gave much important information on medicine in ancient Armenia. Moses of Khoren, the father of Armenian history, wrote that King Vagharshak founded orchards and flower gardens in the swamps of Tayk and Kogh. In those flower gardens medicinal herbs were grown and reproduced.¹ The remarkable curative properties of certain plants, such as bryony, nigella and campion, brought about the worship of these plants in ancient Armenia.

In folk medicine such mineral medicaments as Armenian clay, Armenian stone, Armenian saltpeter and soda were in great repute, as were compounds of mercury, iron, zinc and lead. They were used in the treatment of inflammations, allergies and tumors and also as antidotes for poisons.² In addition to medicinal plants and minerals, Armenian ancient medicine also made use of medicaments of animal origin, prepared from the organs and tissues of animals, some of which were endowed with fermentative properties. Among the latter were extracts of the brain, liver, bile, and endocrine glands of certain animals, the rennet of rabbit, as well as compounds of animal extracts (the so-called moist zufa, mumia, etc.). The above mentioned medicaments were endowed with antitoxic, antisclerotic and hormonal properties.³

¹ Robert W. Thomson (tr.). *Moses Khorenats'i: History of the Armenians*. Cambridge MA: Harvard University Press. 1978:35

² Armenian clay was known to Galen and later to Ibn Sīnā, who wrote in his *Canon*: "Armenian clay, or the clay of Ani has a remarkable influence on wounds. It is especially beneficial against tuberculosis and the plague. Many people were saved during great epidemics since they were in the habit of drinking it in wine diluted with water."

³ Ibn Sīnā wrote in his *Canon*, "That is the fat [lanolin] which in

In the beginning of the fifth century Meshrop Mashtots created the Armenian alphabet. Works on medicine along with historical-philosophical tractates occupy a valued place in ancient Armenian literature. It must be noted that with the appearance of medical literature, the verbal traditions of folk medicine were in no way disregarded. They continued to be used for centuries, becoming the basis for medieval medicine. The works of ancient writers such as Plato, Aristotle, Hippocrates and Galen, had a great influence upon the outlook of medieval Armenian physicians. Thus, at the beginning of its development, Armenian classical medicine bore the beneficial mark of Hellenistic culture. In medieval Armenian science, the ancient theory of the four elements and their corresponding four humors first appeared in the works of Yeznik Koghbatsi (Oganesyan *op. cit.*: 103-105). In his book *Denial of Heresy* (Vienna 1826: 180 [in Armenian]), Yeznik associated the appearance of illness not only with dyscrasia but also with the influence of external factors. He considered these factors of great

Armenia collects on the wool of the fatty tail of sheep dragged over spurge. It absorbs the strength and milky juice of plants. Sometimes this fat is not thick and therefore it is cooked till it thickens. That fat wears away hard tumors and straightens bent bones when applied on a bandage."

significance in bringing about psychological and neurotic illnesses.⁴

Davit Anahght (the Invincible), an Armenian philosopher of the Middle Ages, was well acquainted with the Hippocratic principles of medicine. In his works *Definitions of Philosophy*, *Analysis of Introduction of Porphyry*, and *Commentary on Aristotle's Analysis* Anahght discusses of anatomy, biology, pharmacology, hygiene and medical ethics.⁵

Anania Shirakatsi, the Armenian astronomer and philosopher, was likewise greatly interested in medicine. In his *Knnikon (Canon)*, compiled in 667, he included medical works along with those on astronomy, mathematics, chronology and philosophy. Anania Shirakatsi worked on questions pertaining to phytotherapy (Yerevan Matenadaran, codex 549, p. 78b).⁶ Especially favorable conditions for the development of medicine were created in the tenth and eleventh centuries, during the rule of the Bagratuni family in Ani. Schools of higher education or medieval universities were founded in Ani, Haghpat and Sanahin, where

⁴ Like Hippocrates, who rejected the "holy" nature of epilepsy, he, too, considered psychological illnesses the result of exhaustion of the brain. "As a result of exhaustion of the brain, man loses his consciousness. He speaks to the walls, argues with the wind. For that reason physicians insist that it is not the devil that enters man's body, those are illnesses of man which they can cure." Born in Ayrarat and knowing the properties of Armenian herbs extremely well, their doses and synergic action in medicaments, he wrote, "Hemlock itself is a fatal poison under certain conditions, yet physicians use it to cure chronic disease of the gall bladder. One sort of spurge, taken by itself, is poisonous, but when combined with other medicaments, it cures diseases of the gall bladder and saves the patient from death" (Եզնկայ կորբացոյ, Եղծ աղանդոց, Venice 1826: 180).

⁵ Стелла А. Варданян. "Медико-биологические воззрения Давида Анахта." *Философия Давида Непобедимого*. Moscow, Nauka 1984: 83-93.

⁶ That Anania Shirakatsi worked on the questions pertaining to phytotherapy is mentioned in codex 549 of the Mashtots Matenadaran, in which the curative properties of *hamaspyur*

along with philosophy and the natural sciences, medicine was also a subject of study. The medical conceptions of that period are reflected rather completely in the works of Grigor Magistros, a contemporary of Ibn Sīnā. The capital of the Bagratunis, Ani, was a large cultural center which attracted scientists from different countries. Grigor Magistros kept in touch with many of them by correspondence. One of these correspondents was Cyracos, a Byzantine physician, who lectured in Ani on the physiology of the digestive organs. In the scientific discussion with Cyriacos, Grigor Magistros revealed his profound knowledge of medicine and of the works of Plato, Hippocrates, and Galen. Grigor Magistros was not only fascinated by theoretical questions on medicine, he was also a skilled practical physician. In his letter to the abbot of the monastery of Sevan, he wrote about the illness of Gagik, the last king of the Bagratuni dynasty. In other letters he described small pox with which his own son had been infected. Thus we see in Grigor Magistros as an experienced physician with fine professional sensitivity, well-versed in

‘campion’ are described, a plant worshipped in certain regions of ancient Armenia and dedicated to the goddess Astghik. In the same source, it is stated that in the seventh century Shirakatsi found that very rare plant in Dzoghakert in the province of Ayrarat and used it for medicinal purposes.

clinical medicine and especially in phytotherapy (Oganessian *op. cit.* II.21-31).⁷

Many other Armenian philosophers displayed great interest in natural sciences, especially Hovhannes Sarkavag (1045-1129). Expressing the new ideas of the Armenian Renaissance (tenth-fourteenth centuries), he advocated the separation of science from religion⁸ and the necessity for the experimental study of nature.⁹ Such an intellectual atmosphere promoted the development of the secular sciences and, of course, medicine. It was in Ani, during the peak of the Bagratuni rule that original works on problems of pathology, therapy and pharmacology, so called *bzhshkarans* (medical books) first appeared. Unfortunately time has not preserved for us the author's name of this *bzhshkaran* which was written during the rule of "the victorious King Gagik" (990-1020), at about the same time that Ibn Sīnā created his *Canon*. Later (twelfth-thirteenth centuries) it was edited in Cilician Armenia.¹⁰

It was not at all accidental that the above-mentioned *Bzhshkaran* was edited in Cilician Armenia and was enriched with two additional sections. After the fall of the Bagratunis (1045) the Cilician Armenian state became one of the political and cultural centers in medieval Armenia. Here the favorable conditions were set up for the development of the natural sciences and medicine on the basis of the traditions of

⁷ He advised one of his correspondents who was suffering from fever to use lettuce seeds "If the shell of the seed is white, it brings about weakness which induces sleep. Often, if it is put on the wound, it has a soothing effect on the patient who has fever."

⁸ Mashtots Matenadaran, cod. 2595, p. 250a.

⁹ "The researcher must not only have an all-around education and knowledge, he must not only know the Bible but also the secular sciences. If he completely masters all this, just the same, he cannot be convinced of it without experience. It is only experience that makes facts firm and irrefutable." These ideas of the Armenian philosopher precede those of representatives of the European Renaissance.

¹⁰ Ստեփան Ա. Վարդանյան. "Գագիկ-Հեթումյան բժշկարանը եւ նրա խմբագրական տարբերակները." *ՊԲՀ* 1985.2.145-160.

Greater Armenia.

The fruitful scientific and medical activities of Mkhitar Heratsi were connected with Cilician Armenia and the medical school there. He was called "Mkhitar the Great" by his contemporaries and by physicians of later periods. He was the founder of medieval Armenian medicine. He played the same role in Armenian medicine as Hippocrates did for Greek, Galen for Roman and Ibn Sīnā for Islamic medicine. He gathered, studied and deduced from the experience of the past in classical as well as folk medicine, creating such works that have not lost their value even today.¹¹ Leaving his native town of Her in the first half of the twelfth century, the young Mkhitar departed for Cilician Armenia, where he received a medical education and the honorary title of *bzhshkapet* (doctor of medicine). It was during that period that he wrote his studies on the anatomy of man, biology, pathology and pharmacology, works the greater part of which, unfortunately, because of the tragic fate of the Armenian people, are lost forever. Only individual fragments are to be found in collections in the works of later physicians. As a result of such rich, prolific work in science and medicine, the Armenian *bzhshkapet* had, by the 60's of that century, attained great fame in medicine. He was a close friend of catholicos Nerses Shnorhali who dedicated to him one of his natural-philosophic poems titled "On the Heavens and Its Stars."

In the 80's of the twelfth century, Mkhitar Heratsi began the main work of his lifetime, *Consolation of Fevers*, for which he perserveringly gathered material over a long period of time by not only studying the works of ancient physicians and the Arab also, but by roaming over the marshy valleys of Cilician Armenia and studying malaria, widespread in those places, and other contagious diseases. It is

¹¹ But all that was not enough for such a serious, demanding scientist as "Mkhitar the Great." In the preface of his work *Consolation of Fevers* he wrote: "I, Mkhitar Heratsi, insignificant among physicians, have been since childhood, a follower of wisdom and the art of medicine, and having studied the Arabic, the Persian and the Greek science, saw, by reading their books, that they mastered the perfect art of medicine, according to the first sages-philosophers, that is, the prognostic, the essence of medicine, while among Armenians, I did not find the like, but only about treatment."

not at all surprising, therefore, that this work was the center of attention of all those concerned with the welfare of the people. First and foremost among them was the philosopher and poet Grigor Tgha, the Armenian catholicos who encouraged and aided the *bzhshkapet* in all aspects of his work.

The *Consolation of Fevers* (1184) reflects the world-outlook of Mkhitar Heratsi as a great scientist, his spontaneous materialistic approach to the essence of fever-causing factors, which resulted in his unique, so-called "theory of mouldiness," and most of all his freedom from medieval scholasticism, especially in problems of etiology, pathogenesis and treatment. In discussing aetiological factors of diseases, Heratsi introduced his theory of "mouldiness." In his opinion, it is the "mould" in the blood and other body liquids, which brings about "mould" fever.¹² L. Hovhannissian, a scholar in the history of Armenian medicine, wrote the following about Heratsi: "It is an irrefutable, objective fact that up to the premicrobiological period, no physician ever used such a term to describe the essence of infection, one so close to the truth, as did Mkhitar Heratsi."¹³ In the "mouldy" fever group Mkhitar Heratsi included a number of contagious diseases widespread in the Middle Ages (malaria, typhoid fever, septic diseases, the plague, small-pox, measles). The extensive experience of the great *bzhshkapet* enabled him to clarify the high contagiousness of the above-mentioned fevers. It was later, in the sixteenth century, that European scientist Girolamo Fracastoro developed these ideas in his works.

Armed with such knowledge, Heratsi used the experimental

¹² According to Galen's classification, the fevers were divided into the "one day" and "putrid" fevers. Galen's classification was accepted by Ibn Sīnā who wrote in his *Canon*: "The putrid fevers arise from bad nutritive substances which are inclined to putrifaction. They may be caused also by the pestilent air or by the air of the swamps." In contrast to Galen, he assumed that the fevers could be caused by the fermentation in blood. Thus the theory of "mouldiness" by Heratsi is one of the important links in the chain of ideas from antiquity up to the present.

¹³ Oganessian *op. cit.* II.121.

approach, often contrary to the scholastic point of view, and developed a complex system of cure based on the use of medicaments, especially herbs, as well as dietetic and physical methods. Mkhitar Heratsi considered phytotherapy the most important, based on Armenian folk medicine as well as the experience of ancient and eastern medicine. In treating contagious and allergic diseases, the most useful among the medicaments suggested by the Armenian *bzhshkapet* were the herbs with antibacterial, anti-inflammatory and antiallergic properties (water-lily, violet, iris, mullein, hyssop, inula, mugwort, plantain, liquorice plant, meadow saffron, caper bush, mint, thyme, caltrops.)¹⁴

Mkhitar Heratsi suggested special diets for patients suffering from fever, which included mainly greens, vegetables, and fruit, fresh as well as dried, and juices and sweets prepared from them. Patients were advised to use coriander, basil, celery, okra, purslane and such fruit as pomegranate, quince, grapes, oleaster, figs, jujube, and plums. The Armenian *bzhshkapet* advised giving the patient easily digestible food such as fresh fish, chicken, meat broth, egg yolk, and milk (for tubercular patients, goat and donkey, milk was recommended).

Among physical methods of treatment, Heratsi considered water therapy (dousing, cold baths) as well as cold spongings and gymnastic exercises very important. He also attached great importance to psychotherapeutic methods, and suggested, using music for that purpose.

The study of the *Consolation of Fevers* (its oldest copy may be found today in the Yerevan Mashtots Matenadaran codex 416) reveals the high level of Armenian medicine during the time of Heratsi. Ernst Seidel, who studied and translated it into German, had the following to say about the Armenian physician: "When we without prejudice, compare 'Hildegard's Physic' which was written a few decades before, with that of the Armenian master, we are compelled to definitely grant the laurel of the first place to Heratsi for having basically known nature, for his consistent and individual thinking, and for being completely free

¹⁴ Here see Stella Vardanian. *Միջնադարյան հայ բժշկապետների հայացքներն ալերգիկ հիվանդությունների ու նրանց բուժման վերաբերյալ Բնագիտության և տեխնիկայի պատմությունը Հայաստանում* Vol 4. Yerevan 1987:220-241.

of the yoke of scholasticism."¹⁵

During the thirteenth-fourteenth centuries, there was a noticeable increase in the schools of higher education in Greater Armenia: Yerznkay, Glazor, Tatev. Of the medieval Armenian schools of higher education, the Tatev school is worthy of special mention, where Hovhannes Vorotnetsi and Grigor Tatevatsi were active and in whose works the basic problems of philosophy and those of the natural sciences were also studied.¹⁶

The downfall of the kingdom in Cilician Armenia at the end of the fourteenth century and the continual wars in the thirteenth-sixteenth centuries between Ottoman Turkey and Persia for rule over the territory of historical Armenia brought about a decline in Armenian culture. During those bitter, difficult years, the classical traditions in medicine were preserved in only a few cultural centers in Armenia, the last brilliant spark of which was the works of Amirdovlat Amasiatsi in the fifteenth century. This Armenian *bzhshkapet* was born in the town of Amasia in Asia Minor, which had a large Armenian population, many Armenian schools, hospitals and churches. Although the exact date of his birth is not known, scholars in the history of Armenian medicine, based on certain indirect facts, believe it to be in the first quarter of the fifteenth century.¹⁷ This was politically an extremely tempestuous period, when the western provinces of Armenia fell under Ottoman-Turkish rule. Amirdovlat Amasiatsi lived during this time and was probably even an eye witness to the capture of Constantinople in 1453 by Mehmet 2nd, since in the 50's of the fifteenth century Amirdovlat had departed from his native town and resided in the famous cultural center, where he very likely studied medicine under skilled physicians. Here Amirdovlat soon won acclaim as a physician, and was invited to the Sultan's palace as one of his personal physicians, receiving the honorary

¹⁵ Ernst Seidel. *Mechithar's "Trost bei Fiebern."* Leipzig 1908:iv.

¹⁶ Av. Ter-Poghosyan. *Բիոլոգիական մտքի զարգացումը Հայաստանում*. Yerevan 1960: 374-397.

¹⁷ Oganessian *op. cit.* 3.3. and John Gueriguian. "Amirdovlat Amasiatsi: His Life and Contributions." *Journal of the Society for Armenian Studies*, 3, 1987:64.

title of "head surgeon-oculist."

By that time, Amirdovlat was an experienced, mature physician with great knowledge. In 1459 he wrote his first work, *Teaching on Medicine*, in Constantinople, in which problems of embryology, anatomy, physiology, pharmacology, pathology and hygiene are presented in the spirit of ancient Greek physicians and the authorities of Islamic medicine. *Teaching on Medicine* was later completely rewritten by the author and enriched with new sections on pathology and clinical medicine. The clinical section of that work demanded quite a lot of time, since Amirdovlat's next book, *The Usefulness of Medicine*, was completed in 1469 in the town of Philippopolis (present day Plovdiv, Bulgaria). *The Usefulness of Medicine* is written on the level of the best works of the time and summarizes the knowledge of medieval Armenian physicians on theoretical and practical questions. The section on clinical medicine is of particular value. Descriptions of more than 200 diseases of the internal organs were given as well as methods of treating with medicaments and diet. During the later period of his life, he created his most outstanding works on pharmacology: the *Akhrapatin* (1481) and the *Useless for the Ignorant*, 1482 (British Library, codex 3712, p. 281a).

The decade of his lifetime during which these valuable works were created, was at the same time full of dramatic events in his personal life. On the one hand he gained more and more fame as a humanist physician and talented scientist, while on the other hand, as a Christian, he felt the jealous and open hatred of his enemies, who were not few in the Mohammedan ruled palace. In the preface to *The Usefulness of Medicine* Amirdovlat wrote, "I have suffered many difficulties and hardships at the hands of infidels and foreigners, judges, kings, and princes. For many long years I have been in exile. I have seen good and evil, I have met with adversities, I have known riches and poverty. I have wandered from land to land and practiced my medicine, have used medicaments according to my knowledge. I have served the sick noblemen and rulers, military men of different ranks, citizens and paupers, the aged and the young." Forced to leave the capital, Amirdovlat did not let the ten years of exile pass in vain. Continuing his humane duties towards sick people, be they rich or poor, Amirdovlat studied the medicinal herbs of the land where his fate as a physician-periodista took him, often making experimental studies in the field of pharmacology. In the 70's Amirdovlat returned from exile to Constantinople and, judging from data in manuscripts, again received the

honorary position of personal physician to the sultan. It was during those years that the great *bzhshkapet*'s love for Armenian manuscripts manifested itself, his love for the creations of the physicians and philosophers of the Ancient world. Many of them were saved by him and copied. In the colophon of the oldest copy of his book "Useless for Ignorants" (1490), which is today in the British Library (codex Or 3712), the scribe mentioned the exact date of Amirdovlat's death: "The physician Amirdovlat, the author of this book, passed away true to the Christian faith, in 1496, on Thursday, December 8."

A study of Amirdovlat Amasiatsi's works shows that although he was occupied with practical surgery, especially ophthalmology, yet taken as a whole, he preferred conservative methods of treatment. It must be mentioned that the Armenian *bzhshkapet* was particularly interested in pharmacology and therapy where he summarized the age-old experience of folk and classical medicine. Amirdovlat's *Useless for the Ignorant* is truly considered the summit of Armenian medicine. It is an encyclopedia of medieval Armenian pharmacognosy containing the names and synonyms of more than 3500 medicinal plants, animals and minerals in Armenian, Greek, Latin, Arabic and Persian languages. A study of that work by modern physicians makes it possible to become acquainted with the medicaments of Armenian medicine in the Middle Ages, primarily with phytotherapy.¹⁸

To cure all those diseases, in the cause of which the contagious and allergic factors play a definite role, Amirdovlat Amasiatsi used such herbs as cowparsnip, inula, camomile, mugwort, hyssop, thyme, sweet-flag, black cumin, caltrops, pearl-plant, all native to Armenian plant life. All these herbs were rich in ether oils, vitamins, plant hormones and other biologically active substances which made for their curative influence. By means of the same experimental methods, the Armenian *bzhshkapet* revealed the antitumoural properties of hog's fennel, field eryngo, red periwinkle, heliotrope, meadow saffron and certain other plants which according to present data, contain coumarin's and furocoumarin's derivatives as well as alkaloids, colchicine and

¹⁸ Амирдовлат Амасиаци. *Ненужное для неучей*. Translation and commentary by Stella Vardanian. Moscow: Nauka. 1990:527-552.

vinblastin.¹⁹ Amirdovlat attached great significance to those herbs which had antitoxic (lavender, marigold, ironwort), and antisclerotic properties (birth-wort, snake bryony). For the same purpose he used some gums of plant, animal and inorganic origin (galbanum, sagapenum, assa-foetida, propolis, mumia, etc.).

To use this vast amount of medicaments in Armenian pharmacopeias freely and correctly, not only did the physician need to have had great experience and deep knowledge, he also needed to be well acquainted with botany, zoology and chemistry. Amirdovlat Amasiatsi was endowed with all these qualities. He made a significant contribution to medieval Armenian medicine, creating a whole library of medical works. Like all great physicians, Amirdovlat was not alone in practicing his art. He created a school of Armenian phytotherapeutists, which existed for a few centuries and whose influence can be noted in the works of Asar and Buniat Sebastatsi (sixteenth-seventeenth centuries). With physicians of the Sebastian school ends the last period in the development of Armenian medicine.

Beginning with the second half of the eighteenth century, a number of Armenian physicians came to the fore, having received their education in European and Russian institutions (P. Kalantarian, S. Shahrmanian, M. Resten). It must be noted that they often coordinated the data of European science with the rich experience of traditional Armenian medicine. Amirdovlat's traditions left a deep impression on the works of famous Armenian physician and botanist Stepanos Shahrmanian²⁰ (1766-1830). In his extensive work *Botany or Armenian Flora*, those Armenian medical herbs are described which were used in medieval Armenian phytotherapy.

In the second half of the nineteenth century, a whole constellation of talented physicians came to the fore (M. Arustamian, V.

¹⁹ Стелла А. Варданян. Попытки лечения опухолей в средневековой армянской медицине. Ереван 1976:9-39.

²⁰ К. С. Марджанян. История ботаники в Армении на рубеже ХУІІІ - ХІХ вв. Труд С. Шариманяна. Ботаника или флора Армении. Автореферат диссертации на соискание степени канд. биол. наук. Ереван, 1974.

Ardzruni, H. Mirza-Avagian, L. Orbeli, L. Hovhannissian) and many others who were innovaters in old Armenian medicine and founders of the new. The vast experience of Armenian folk and classic medicine in the field of phytotherapy attracted the attention of and was studied by such great specialists as A. Sepetjian, S. Mirzoyan, S. Zolotnitskaya and others, forming an endless source for pharmaceutical production in Armenia.²¹

Modern medicine today very often refers to the rich experience of traditional Armenian medicine, benefiting both from written sources such as the works of medieval Armenian *bzhshkapets* and from verbal folk traditions. Thus the age-old rich experience of Armenian medicine has not only pure historical significance but it also presents practical values in treating a number of diseases such as cancer, atherosclerosis, psychical disturbances and allergies, which have not as yet been solved by modern medicine.

²¹ С. Я. Золотницкая. *Лекарственные ресурсы флоры Армении*, Vols 1-2. Yerevan, 1958, 1965.